

# FHIT.1250 - Electrical Circuit Integrity Systems

## Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

## FHIT - Electrical Circuit Integrity Systems

See General Information for Electrical Circuit Integrity Systems

### System No. 1250

September 14, 2020

### Fire-Resistive Rating - 2 Hr.



Figure 1  
Cable Clamp

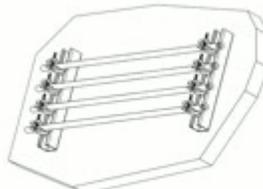


Figure 2  
Steel Struts



Figure 3  
Steel Strut Trapezo

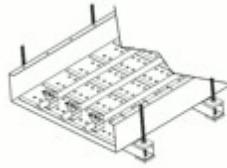


Figure 4  
Steel Tray

1. **Wall or Floor Assembly** — Concrete or masonry wall or concrete floor having an hourly rating corresponding to at least the FRR. Opening in wall or floor through which cable passes is to be sized to closely follow the contour of the cable. Through opening in wall or floor to be firestopped using a compatible firestop system. See **Through-penetration Firestop Systems** (Guide XHEZ) category for presently Certified firestop systems.

2. **Raceway (optional)** — Horizontal and vertical installation.  
**ALLIED TUBE & CONDUIT CORPORATION** — 2 inch. Type EMT E-Z Pull Brand

<b>Minimum Raceway Trade Size, in.</b>	
DragonSkin Cable	2

Note 1: Horizontal or Vertical Installation

Note 2: Only one cable inside the conduit

2A. **Raceway Coupling (optional)** — (Not Shown).  
**COOPER CROUSE-HINDS/EATON**

— 2 in. compression (665 model).

**ATKORE/KONKORE**

— 2 in. Set screw (SK200RKON model)

2B. **Raceway Elbow (optional)** — (Not Shown)  
**ALLIED TUBE & CONDUIT CORPORATION** — 2 in. Type EMT E-Z Pull Brand.

3. **Fire Resistive Cables\*** —  
**RADIO FREQUENCY SYSTEMS INC** — DragonSkin 2HB12-50JPLX, Type CATVP cable. To be installed as described herein and in accordance with the manufacturer's installation instructions 603400216500 dated Aug 2020, File FHJR.R40176.

4. **Supports** — (Figure 2) - Min 12 gauge, by 1-1/2 in. wide or 1-5/8 in wide, painted or unpainted, slotted steel channels with hemmed flange edges. Channel bottom with or without holes. Lengths of slotted steel channels 5 ft. and less shall be secured to the wall or floor with a min of two 1/4 in. diameter (or larger) by 2-1/4 in. min long concrete screws, or 1/4 in. diameter (or larger) by 1-3/4 in. long min steel masonry anchors. One screw or anchor to be located at each end of the slotted steel channel. Lengths of slotted steel channel in excess of 5 ft. require a min of three screws or anchors, one at each end of the channel and one centrally located within the length of the channel. For horizontal and vertical cable installations, the cable(s) shall be installed with Radio Frequency Systems Clamp-12 maximum of 2 ft. OC. Refer to the Manufacturer's Installation Instructions for additional details. For horizontal and vertical cable installations with conduit, the supports shall be spaced at a maximum of 5 ft OC.

4A. **Trapeze-type Supports** — (Figure 3) - The raceways shall be installed on/from trapeze-type supports. The trapeze-type supports shall be secured from the surface of the floor. The supports shall be spaced a maximum of 2 ft. OC (Figure 6) - 5 ft.

OC when used with conduit. Refer to the Manufacturer's Installation Instructions for additional details.

4B. **Cable Tray-type Supports** — (Figure 4) The cable(s) shall be installed within cables trays with Radio Frequency Systems Clamp-12 maximum of 2 ft. OC. When used with conduit, supports shall be spaced at a maximum of 5 ft OC. The cable tray-type supports shall be secured to the surface of the wall or floor. Refer to the Manufacturer's Installation Instructions for additional details.

5. **Clamps** — (Figure 1) one-piece single-bolt pipe clamps. Min 25 gauge stainless steel, 1-1/4 in. wide. Refer to manufactures installation instructions.

**RADIO FREQUENCY SYSTEMS INC** — Type Clamp-12

5A. **Clamps** — (Figure 5)

**COOPER B-LINE SYS**

— 2 in. (B2006PAZN model)

**ERICO PROD**

— 2 in. EMT (SCH32B model)

For horizontal or vertical cable installations, the clamp shall be spaced a maximum of 5 ft OC.

6. **Pull Box** — (Not Shown)

**HOFFMAN**

— Pull box (ASE16X16X6NK model)

7. **Pull Box Connector** — (Not Shown).

**COOPER CROUSE-HINDS/EATON**

— 2 in. compression (655 model)

**ATKORE/KONKORE**

— 2 in. set screw (SC200RKON model)

8. **Pulling Lubricant** — (Not Shown) — When installing DragonSkin cables within a single conduit, the cable shall be coated with pulling lubricant.

**AMERICAN POLYWATER CORP** — Polywater LZ

9. **Vertical Cable Supports** — (Not Shown)

**HUBBELL**

— Single eye grip .73-.85 (073041280 model). Vertical runs beyond the maximum distance (50 ft) requires the cables to be supported using a HUBBELL stainless steel wire mesh support grip within a vertical enclosure. The grip must be suspended from a steel bolt or steel hook fastened to the back or side wall of the enclosure.

\*Bearing the UL Mark

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